PROGRAM
75th ANNUAL CONVENTION
March 18-23, 1979
Milwaukee, Wisconsin

Registration fees cover attendance at all ACI technical and educational committee meetings, general session, symposia, and the Concrete Mixer. They do not cover the educational seminars on Tuesday and Wednesday nor the Awards Luncheon on Thursday for which there are separate charges.

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SUSTAINING MEMBERS OF THE
AMERICAN CONCRETE INSTITUTE

Master Builders
Division of Martin Marietta Corporation
Cleveland, Ohio

Southwestern Portland Cement Company
Los Angeles, California

Portland Cement Association
Skokie, Illinois

Sika Chemical Corporation
Lyndhurst, New Jersey

Marquette Company
Nashville, Tennessee

Martin Marietta Cement
Bethesda, Maryland

W.R. Grace & Company
Cambridge, Massachusetts
SCHEDULE

SUNDAY, MARCH 18
6:30 a.m. - 6:00 p.m.
Administrative committee meetings

MONDAY, MARCH 19
8:30 a.m. - 10:00 p.m.
Administrative, technical, and educational committee meetings
1:30 p.m. - 5:30 p.m.
Concrete Construction Clinic (Registration fee: $10.00)

TUESDAY, MARCH 20
8:30 a.m. - 10:00 p.m.
Administrative, technical, and educational committee meetings
1:30 p.m. - 5:30 p.m.
Symposium on Deterioration of Concrete (ACI Wisconsin Chapter)
2:00 p.m. - 5:00 p.m.
Research on Plain and Reinforced Concrete (Committee 115)
2:00 p.m. - 5:00 p.m.
Building Nuclear Power Plant Components to ASME Section III, Division 2 (ACI Standard 359 / Committee 359)
2:00 p.m. - 6:00 p.m.
Seminar: Seismic Design of Concrete Structures (Committee E702) (Registration fee: $25.00 ACI Members; $30.00 Nonmembers)
2:00 p.m. - 6:00 p.m.
Administrative, technical, and educational committee meetings
5:00 p.m. - 8:00 p.m.
Concrete Mixer

THURSDAY, MARCH 22
3:30 a.m. - 12:30 p.m.
Symposium on Sanitary Engineering Structures (Committee 350)
5:30 a.m. - 6:00 p.m.
International Symposium on Foundations for Equipment and Machinery (Committee 351)

FRIDAY, MARCH 23
8:00 a.m. - 1:00 p.m.
Technical and educational committee meetings
9:00 a.m. - 12:00 noon
Design Philosophies for Shear Walls (Committees 442 and 445)
9:00 a.m. - 12:00 noon
Concrete Transportation and Placing Equipment: Past, Present, and Future (Committee 304)
SPECIAL EVENTS

Information Booth . on the fourth floor all week. This booth has been set up by the Local Convention Committee to help you explore Milwaukee. Take advantage of it!

Publications Display . on the fourth floor all week. See the latest ACI publications now available. Orders are taken at the ACI Registration Desk which is also on the fourth floor.

Breakfast (by invitation only) . 7:00 a.m., Tuesday, in the Regency Room, for technical committee chairman.

Film on Shotcrete . starting at 11:00 a.m., Tuesday, in the Empire Room. As a special added attraction, ACI Committee 506, Shotcreting, will show a slide presentation entitled, "Refractory Shotcrete and Gun Casting." It will be incorporated as part of their regular committee meeting and visitors are invited to attend.

Education at the Convention . Two half-day programs are being presented, each of which require a separate registration fee. Since enrollment is limited, early registration is advised.

Concrete Construction Clinic . Tuesday, 1:30 p.m. - 5:30 p.m., in the Crystal Ballroom. Designed to show the participants how concrete should be considered as a total system of construction.

Seismic Design of Concrete Structures . Wednesday, 2:00 p.m. - 6:00 p.m., in the Empire Room. Arranged to help engineers handle the problems associated with the design of structures in seismic areas.

Breakfast Assembly . Wednesday, 8:15 a.m. - 9:00 a.m., in the Crystal Ballroom. A complimentary continental breakfast will be served buffet style prior to the start of the General Session.

Members' Rap Session . 10:30 a.m., Wednesday, in the Crystal Ballroom. This is your chance to talk informally with ACI Officers and Staff.

"Concrete Mixer" . 6:00 p.m. - 8:00 p.m., Wednesday. This traditional event will be held at the Wisconsin Club which is a beautiful old mansion located a short distance from the hotel. Buses will shuttle you to and from the Club. Please wear your badge and bring your ticket.

Awards Luncheon . Thursday, 12:15 p.m. - 2:30 p.m., in the Empire Room. Good food and drink and multi-media presentations are combined into a pleasurable format. Get your tickets early!

Special Tours . have been planned by the Local Convention Committee. Be sure to check the Women's Program in the back of this booklet for tours of interest to you. There will be at least one and probably several. Don't miss them!

Technical Tours . have also been planned by the Local Convention Committee. Since both men and women are invited to come, further information on these tours is included in the Women's Program in the back of this booklet. Tickets are available from the Information Booth on the fourth floor.

COMMITTEE MEETINGS

Be sure to check the bulletin board for last minute changes or added meetings.

COMMITTEE MEETINGS

SUNDAY

MARCH 16

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<td>Da Vinci</td>
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MONDAY

MARCH 19

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<td>Chagall</td>
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<td>Michelangelo</td>
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<td>Board Room, Admiral Inn</td>
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<td>Conference</td>
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<td>Crystal Ballroom</td>
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TUESDAY

MARCH 20

8:30 a.m.-10:30 a.m.

- Board of Directors
- Standards Board

- Board Room, Admiral Inn

9:30 a.m.-11:30 a.m.

- Committee on Matriculation
- Educational Activities Committee

- Rembrandt

10:30 a.m.-12:30 p.m.

- Planning Committee
- Subcommittee on Code Implementation

- Board Room, Admiral Inn

12:30 p.m.-2:00 p.m.

- Board of Directors
- Standards Board

- Board Room, Admiral Inn

3:00 p.m.-5:00 p.m.

- Committee on Matriculation
- Educational Activities Committee

- Rembrandt

6:00 p.m.-8:00 p.m.

- Planning Committee
- Subcommittee on Code Implementation

- Board Room, Admiral Inn

9:30 p.m.-11:30 p.m.

- Committee on Matriculation
- Educational Activities Committee

- Rembrandt

12:30 p.m.-2:00 p.m.

- Board of Directors
- Standards Board

- Board Room, Admiral Inn
WEDNESDAY
MARCH 21

8:15 a.m.-9:00 a.m.
BREAKFAST ASSEMBLY
Crystal Ballroom

359 Subgroup on Testing for Protection vs. Overpressure
Rembrandt

359 Working Group on Quality Assurance and Stamping
Da Vinci

359 Working Group on Duties and Responsibilities
Chagall

544 Fiber Reinforced Concrete
Picasso

9:00 a.m.-10:30 a.m.
GENERAL SESSION
Crystal Ballroom

10:30 a.m.-11:30 a.m.
ACI MEMBERS' RAP SESSION
Crystal Ballroom

1:30 p.m.-5:30 p.m.
DETERIORATION OF CONCRETE
Monarch

2:00 p.m.-4:00 p.m.

Chapter Activities Committee
Picasso

Convention Committee
Michelangelo

Creep and Shrinkage in Concrete
Piccadilly

Specifications for Structural Concrete
Churchill

318 Standard Building Code
Van Gogh

344 Circular Prestressed Concrete Structures
Renoir

350 Sanitary Engineering Structures
Westminster

359 Subgroup on Testing for Protection vs. Overpressure
Rembrandt

359 Working Group on Quality Assurance and Stamping
Da Vinci

359 Working Group on Duties and Responsibilities
Chagall

439 Steel Reinforcement
Conference

517 Accelerated Curing of Concrete at Atmospheric Pressure
Matisse

547 Refractory Concrete
Dali

2:00 p.m.-5:00 p.m.
E-702 Designing Concrete Structures
Parliament

RESEARCH ON PLAIN AND REINFORCED CONCRETE
Regency

BUILDING NUCLEAR POWER PLANT COMPONENTS TO ASME SECTION III, DIVISION 2
(ACI STANDARD 359)
Crystal Ballroom

2:00 p.m.-6:00 p.m.

SEMINAR: SEISMIC DESIGN OF CONCRETE STRUCTURES
Empire

4:00 p.m.-6:00 p.m.

Chapter Activities Committee
Picasso

Convention Committee
Michelangelo

116 Nomenclature
Rembrandt

209 Creep and Shrinkage in Concrete
Piccadilly

216 Fire Resistance and Fire Protection of Structures
Matisse

301 Specifications for Structural Concrete
Churchill

318 Standard Building Code
Van Gogh

344 Circular Prestressed Concrete Structures
Renoir

350 Sanitary Engineering Structures
Westminster

439 Steel Reinforcement
Conference

544 Fiber Reinforced Concrete
Chagall

547 Refractory Concrete
Dali

E-702 Designing Concrete Structures
Parliament
THURSDAY
MARCH 22

8:30 a.m.-10:30 a.m.
114 Research and Development Westminster
309 Consolidation of Concrete Chagall
318 Standard Building Code Van Gogh
356 Industrialized Concrete Construction Piccadilly
359 Subgroup on Design Parliament
359 Subgroup on General Requirements Da Vinci
359 Working Group on Core Support Structures Matisse
359 Working Group on Component Supports Michelangelo
359 Working Group on Concrete Churchill
359 Working Group on Liners Renoir
359 Working Group on Reinforcing and Prestressing Picasso
547 Refractory Concrete Dalí
548 Polymers in Concrete Rembrandt
E-801 Student Concrete Projects Empire

8:30 a.m.-12:00 noon
FOUNDDATIONS FOR EQUIPMENT AND MACHINERY (first session) Regency

8:30 a.m.-12:30 p.m.
SANITARY ENGINEERING STRUCTURES Monarch
9:00 a.m.-12:00 noon

PRACTICAL AND POTENTIAL APPLICATIONS OF HIGH-STRENGTH CONCRETE (first session) Crystal Ballroom
10:30 a.m.-12:30 p.m.

114 Research and Development Westminster
309 Consolidation of Concrete Chagall
318 Standard Building Code Van Gogh
356 Industrialized Concrete Construction Piccadilly
359 Subgroup on Design Parliament
359 Subgroup on General Requirements Da Vinci
359 Working Group on Core Support Structures Matisse
359 Working Group on Component Supports Michelangelo
359 Working Group on Concrete Churchill
359 Working Group on Liners Renoir
359 Working Group on Reinforcing and Prestressing Picasso
547 Refractory Concrete Dalí
548 Polymers in Concrete Rembrandt

12:15 p.m.-2:30 p.m.
AWARDS LUNCHEON Rembrandt

2:30 p.m.-4:30 p.m.
- New Board of Direction Empire

318 Standard Building Code Van Gogh
359 Subgroup on Design Parliament
359 Subgroup on General Requirements Da Vinci
359 Working Group on Core Support Structures Matisse
359 Working Group on Component Supports Michelangelo
359 Working Group on Concrete Churchill
359 Working Group on Liners Renoir
359 Working Group on Reinforcing and Prestressing Picasso
547 Refractory Concrete Dalí
548 Polymers in Concrete Rembrandt

2:30 p.m.-5:00 p.m.
PRACTICAL AND POTENTIAL APPLICATIONS OF HIGH-STRENGTH CONCRETE (second session) Crystal Ballroom

ACCELERATED CURING Monarch

2:30 p.m.-5:00 p.m.

318 Standard Building Code Van Gogh

2:30 p.m.-5:30 p.m.

- New Board of Direction Rembrandt
- International Activities Committee Matisse
215 Fatigue of Concrete Parliament
222 Corrosion of Metals in Concrete Renoir
307 Reinforced Concrete Chimneys Michelangelo

318 Standard Building Code Van Gogh
359 Subgroup on Materials, Construction and Examination Picasso
515 Coatings for Concrete Westminster
523 Insulating and Cellular Concretes Piccadilly
546 Repair of Concrete Chagall
547 Refractory Concrete Dalí

2:30 p.m.-5:30 p.m.

7:30 p.m.-9:30 p.m.

318 Standard Building Code Van Gogh
359 Subgroup on Materials, Construction and Examination Picasso
428 Inelastic Behavior of Reinforced Concrete Structures Rembrandt
515 Coatings for Concrete Westminster

7:30 p.m.-10:00 p.m.

FORUM: PARKING STRUCTURES Regency

FRIDAY
MARCH 23

8:00 a.m.-1:00 p.m.
359 Concrete Components for Nuclear Reactors Van Gogh

8:30 a.m.-12:30 p.m.

533 Precast Panels Matisse

9:00 a.m.-12:00 noon

CONCRETE TRANSPORTATION AND PLACING EQUIPMENT Monarch

DESIGN PHILOSOPHIES FOR SHEAR WALLS Regency

FORUM: PARKING STRUCTURES Regency
TECHNICAL ACTIVITIES COMMITTEE

JOHN E. BRENN, Chairman
SAMUEL J. HENRY, Secretary*
W. GENE CORLEY
RICHARD D. GAYNOR
JAMES C. MACDONALD
T. E. NORTHUP
CHARLES J. PANKOW
THOMAS J. PASKO, JR.
ROBERT E. PRICE
THOMAS J. READING
PAUL ZIA

EDUCATIONAL ACTIVITIES COMMITTEE

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CUTBERTO DIAZ-GOMEZ
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C. A. CLAPP, Secretary*
WILLIAM D. CROMARTIE
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EDWARD L. KAWALA
EVERETTE OSGOOD
EDWARD D. PFRANG
HERMAN G. PROTEZ III
RAYMOND J. SCHUTZ
DANIEL J. SLADEK
PAUL ZIA

*American Concrete Institute
P.O. Box 19150
Detroit, Michigan 48219

TUESDAY, MARCH 20
1:30 p.m. - 5:30 p.m.

MAKE CONCRETE CONSTRUCTION PREDICTABLE

A PRACTICAL CONCRETE CONSTRUCTION CLINIC
sponsored by American Concrete Institute and cosponsored by AGC of Greater Milwaukee, Wisconsin Chapter of AGC, and the Southeast Chapter of Wisconsin Society of Architects, AIA

Empire Room

A clinic on the practical planning and construction of concrete structures. Concrete construction will be likened to a manufacturing process. All parts of the work must be related and mesh with other parts for the results to be successful. Materials, mix proportioning, reinforcing details, forms, placement, compaction, equipment and project management are parts of the system. Each part will be discussed and their most important features described.

The clinic will be especially beneficial and helpful to architects, engineers, construction managers, specifiers, estimators, project superintendents, concrete supervisors, and field inspectors. It will be conducted by James M. Shilstone, director, The Concrete Associates, Inc., Dallas, Texas, and Allan R. Keenly, also of The Concrete Associates, Inc.

PROGRAM

Introduction
Concrete Planning and Construction as a System
The Concrete Documents and Quality Assurance Planning
Reinforcing Steel Details: Congestion, Alternatives, and Constructability
Materials and Mixes for Quality and Efficient Use of Available Resources
Advances in Forming and Systems
Selection of Placement, Processes, and Equipment
The Basics of Architectural Concrete
Contract Management, Supervision, and Controls
Summary

NOTE: A separate registration fee of $10.00 is charged for this clinic. Since enrollment is limited, early registration is advised.
WEDNESDAY, MARCH 21
8:15 a.m.
Continental Breakfast Assembly
Crystal Ballroom

9:00 a.m. - 10:30 a.m.
GENERAL SESSION
Crystal Ballroom

Session Chairman: Donald R. Buettner, general chairman, 1979 Annual Convention, and president, Computerized Structural Design, Inc., Milwaukee, Wisconsin

Welcome
Donald R. Buettner, session chairman

The Outlook for Cement in 1979 and Beyond

Acknowledgment of Chapter Officers

Presentation of the Delmar L. Bloem Distinguished Service Awards
Recipients: PETER D. COURTOIS
I. LEON GLASSGOLD
ERIC C. SMITH

10:30 a.m.
ACI Member's Rap Session
Crystal Ballroom

WHAT DO YOU WANT TO KNOW ABOUT ACI?
John L. Goetz, President
George F. Leyh, Executive Director
Invite YOU to Ask Them

WEDNESDAY, MARCH 21
1:30 p.m. - 5:30 p.m.
SYMPOSIUM ON DETERIORATION OF CONCRETE
Monarch

Sponsored by ACI Wisconsin Chapter

Session Chairman: Tarun R. Naik, assistant professor of structural engineering, Department of Civil Engineering, University of Wisconsin-Milwaukee, Milwaukee, Wisconsin

Keynote Address: Concrete Need Not Deteriorate
Bryant Mathur, acting chief, Structures Laboratory, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi

Cathodic Protection of a Reinforced Concrete Bridge Deck
Gerald H. Anderson, bridge research engineer, Bridge Section, Wisconsin DOT, Madison, Wisconsin

Deterioration of Concrete—A View on the Problems, Causes and Control
K. Ganesh Babu, scientist, and Zacharia George, assistant director, Structural Engineering Research Center, Madras, India

Investigation and Repair of Holst Dam

How to Eliminate Concrete Scaling
Frank W. Madderom, vice president, engineering, Central Ready-Mixed Concrete, Milwaukee, Wisconsin

Detecting Delamination in Concrete Bridge Decks
David G. Manning, research officer, and Frank B. Holt, research technician, Ministry of Transportation and Communications, Downsview, Ontario, Canada

Repair of Concrete Surfaces Subjected to Abrasion-Erosion Damage
James E. McDonald, chief, and Tony C. Liu, research structural engineer, Structures Branch, Structures Laboratory, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi

Deterioration of Reinforced Concrete Wharf
Hiroshi Saki, associate professor, Civil Engineering Department, Waseda University, Tokyo, Japan

Analysis in Retrofit of Concrete Structures
James M. Shilstone, director, The Concrete Associates, Inc., Dallas, Texas

Engineered Approach to Dealing with the Naggging Problem of Concrete Deterioration
Yogincha N. Anand, senior engineer, Generation Engineering Department, Detroit Edison, Detroit, Michigan
WEDNESDAY, MARCH 21
2:00 p.m. - 5:00 p.m.

RESEARCH ON PLAIN AND REINFORCED CONCRETE
sponsored by ACI Committee 115

(Brief and confidential reports)

Session Chairman: Boris Brerster, chairman, ACI Committee 115, and senior consultant, Wiss, Janney, Elstner & Associates, Inc., Emeryville, California

Secretary: Charles F. Scholer, secretary, ACI Committee 115, and professor, Department of Civil Engineering, Purdue University, West Lafayette, Indiana

Behavior of Reinforced Concrete Two-Way Ribbed Floors with Orthogonal Unevenly Distributed Ribs
Zenon A. Zielinski and Aris Nicolopoulos, Department of Civil Engineering, Concordia University, Chazy, New York

Static and Dynamic Load Tests on Concrete Beams Reinforced with Fibers and Continuous Bars
H. A. Kormeling and H. W. Reinhardt, Delft University of Technology, Delft, Holland; and S. P. Shah, professor of civil engineering, Department of Materials Engineering, University of Illinois at Chicago Circle, Chicago, Illinois

Plastic Concrete Mix Designs and Quality Controls
James M. Shilstone, director, The Concrete Associates, Inc., Dallas, Texas

Frost Resistance and Air-Void Characteristics in Hardened Concrete
Odd E. Gjárv, E. Bæthen, R. Husevag, and J. Sliper, Department of Civil Engineering, University of Trondheim, Trondheim, Norway

A Study of the Transition from a Shear Mode to a Flexural Mode of Failure in Short Reinforced Concrete Columns Subjected to Cyclic Bilateral Deformations
Kyle Woodward, research assistant, and James D. Jirsa, professor, Department of Civil Engineering, University of Texas at Austin, Austin, Texas

A. J. BOASE AWARD OF THE REINFORCED CONCRETE RESEARCH COUNCIL

Arthur R. Anderson has been selected by the Reinforced Concrete Research Council to receive the 1979 Arthur J. Boase Award "...in recognition of his career-long series of major accomplishments that have advanced the art and science of reinforced and prestressed concrete design and construction."

Sandwich Cylinders (Steel-Concrete-Steel) Under External Pressure
C. Douglas Goods, Simon Engineering Laboratories, University of Manchester, Manchester, England

A New Approach to the Design of Partially Prestressed Beams
A. Siraksorn and A.E. Naaman, associate professor of structural design, Department of Materials Engineering, University of Illinois at Chicago Circle, Chicago, Illinois

Analysis of Hollow Core Beams for Flexure
P. Balaguru, assistant professor; and E.G. Navy, professor of civil engineering, Rutgers, The State University of New Jersey, Piscataway, New Jersey

Modified Dowel Bar Evaluation
Frederic R. Ross, research project engineer, Wisconsin Department of Transportation, Madison, Wisconsin

General Structural Integrity in Concrete Masonry Buildings
N.W. Hanson, principal structural engineer; and D.M. Schultz, senior structural engineer, Portland Cement Association, Skokie, Illinois
WEDNESDAY, MARCH 21
2:00 p.m. - 5:00 p.m.
BUILDING NUCLEAR POWER PLANT COMPONENTS TO ASME SECTION III, DIVISION 2 (ACI STANDARD 359)
sponsored by ACI-ASME Committee 359

Crystal Ballroom

Session Chairman: Don K. Cronberger, chairman, ACI-ASME Committee 359, and manager of engineering and design, GPU Service Corporation, Mountain Lakes, New Jersey

Overall Scope of the Joint ACI/ASME Code Section III, Division 2 (ACI-359)
T.E. Northup, manager, Reactor Engineering Department, General Atomic Company, San Diego, California

Responsibilities and Duties
Frank W. Brady, Pacific Gas & Electric Company, San Francisco, California

Functions of the Authorized Inspection Agency and the Authorized Inspector
A.J. Snyder, field representative, The National Board of Boiler and Pressure Vessel Inspectors, Oakland, California

Nuclear Regulatory Commissions Endorsement of the Section III, Division 2 Code
Frank Rinaldi, U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulations, Washington, D.C.

Nuclear Regulatory Commissions Enforcement of the Section III, Division 2 Code and Comments on Third Party Inspection
Robert E. Shewmaker, Nuclear Regulatory Commission, Gaithersburg, Maryland

Qualification of Concrete Inspection and Test Personnel
Francis W. Joyce, Bechtel Corporation, San Francisco, California

Current Techniques Used in the Design of Concrete Containments
John O. Stevenson, J.D. Stevenson Consultants, Cleveland, Ohio

Code Implementation During Construction
Barry B. Scott, United Engineers and Constructors, Inc., Philadelphia, Pennsylvania

Testing of Concrete Containment Structures

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WEDNESDAY, MARCH 21
2:00 p.m. - 6:00 p.m.

SEMINAR: EARTHQUAKE RESISTANCE OF MULTISTORY REINFORCED CONCRETE STRUCTURES CONTAINING STRUCTURAL WALLS
sponsored by ACI Committee E-702

Empire Room

Participants will be familiar with the most recent developments in the field of earthquake resistance in reinforced concrete multistory buildings containing structural (shear) walls.

The summary of analytical and experimental research on structural wall structures carried out during the last five years at the University of California at Berkeley, and at the Portland Cement Association will be discussed in some detail. This research formed the basis for a more realistic proportioning of structural walls.

While the present methods of design and proportioning will be briefly discussed as a summary of the state-of-the-art, a recently developed alternate procedure based on dynamic inelastic analysis (response history analysis) will be explained and amplified by a design example of the earthquake response of a 16-story coupled wall system structure.

This seminar is for designers and engineers who want to be up-to-date on recent developments in the design of seismic resistant structures.

Seminar Leader: Mark Fintel, director, Advance Engineering Services, Portland Cement Association, Skokie, Illinois

Instructors:
V.V. Bertore, professor, Department of Civil Engineering, University of California, Berkeley, California
A.T. Derecho, structural engineer, Portland Cement Association
A.E. Fierato, manager, Construction Methods Section, Portland Cement Association
S.K. Ghosh, senior structural engineer, Portland Cement Association

PROGRAM

State of the Art as Represented by Present Codes
Recent Research at Berkeley: Analytical and Experimental
Recent Research at PCI: Analytical and Experimental
Proportioning of Walls Based on Recent Research
Explicit Inelastic Dynamic Analysis: Description, Input, Method
Coupled Wall Systems: Design Example

NOTE: A separate registration fee is charged for this seminar of $25.00 for ACI Members and $30.00 for nonmembers. Since enrollment is limited, early registration is advised.
THURSDAY, MARCH 22
8:30 a.m. - 12:30 p.m.

SYMPOSIUM ON SANITARY ENGINEERING STRUCTURES
sponsored by ACI Committee 350

Session Chairman: Timothy J. Fowler, chairman, ACI Committee 350, and senior fellow, Monsanto Company, St. Louis, Missouri

Concrete for Sanitary Engineering Structures
Carl R. Wilder, consultant, Escondido, California; and Ralph E. Spears, manager, Concrete Information Section, Portland Cement Association, Skokie, Illinois

Strength Design for Crack Control in Sanitary Structures
Paul F. Rice, vice-president engineering, Concrete Reinforcing Steel Institute, Chicago, Illinois

Application of Strength Design Methods to Sanitary Structures
Frank Kleis and Edward S. Hoffman, principals, Klein and Hoffman, Chicago, Illinois

Joints in Sanitary Structures
Roger H. Wood, vice-president, Camp, Dresser and McKee, Boston, Massachusetts

Corrosion Resistance of Concrete Sanitary Engineering Structures
Philip H. Perkins, senior advisory engineer, Cement and Concrete Association, London, United Kingdom

Resistance of Concrete Structures to Gas Penetration
Harold N. Schneider, vice-president and chief structural engineer, Consor, Townsend and Associates, Chicago, Illinois; and Larry Mrazek, associate, Consor, Townsend and Associates, St. Louis, Missouri

Recommendations for Use of Expansive Cement Concrete in Sanitary Engineering Structures
Joe V. Williams, Jr., architectural marketing manager, Texas Industries, Inc., Arlington, Texas

THURSDAY, MARCH 22
8:30 a.m. - 12:00 noon

INTERNATIONAL SYMPOSIUM ON FOUNDATIONS FOR EQUIPMENT AND MACHINERY
sponsored by ACI Committee 351

Session Chairman: Tarun R. Naik, assistant professor of structural engineering, Department of Civil Engineering, University of Wisconsin-Milwaukee, Milwaukee, Wisconsin

Session I

Keynote Address: Pile Support Machine Foundations
M. Novak, professor of engineering science, University of Western Ontario, London, Ontario, Canada

Empirical Expressions for Frequency Dependent Soil Springs for Machine Foundation Design
Mohammed M. El-touny, senior civil engineer, and Joseph A. Brennan, civil engineer, Burns and Roe, Inc., Woodbury, New York

Uplift Capacity of Static Equipment Foundation Anchors in Sand and Saturated Clay
Braj M. Das, assistant professor, Civil Engineering Department, University of Texas at El Paso, El Paso, Texas

Vibration Isolated Foundations for Boiler Feedpumps
Herbert A. Franklin, engineering supervisor, Research and Engineering Division, Bechtel National, Inc., San Francisco, California

Spring and Dashpot Coefficients for Machine Foundations on Piles
Michael J. O'Rourke, assistant professor; and Ricardo Dobry, associate professor, Department of Civil Engineering, Rensselaer Polytechnic Institute, Troy, New York

Foundation Design of Rod and Ball Mills
Bal K. Sanan, structural engineer; and Conrad E. Huss, department head, Structural Engineering, Mountain States Engineers, Tucson, Arizona
THURSDAY, MARCH 22
9:00 a.m. - 12:00 noon

PRACTICAL AND POTENTIAL APPLICATIONS OF HIGH-STRENGTH CONCRETE
sponsored by the ACI Ad Hoc Committee on High-Strength Concrete

Crystal Ballroom

Session Chairman: Richard D. Gaynor, vice-president of engineering and research, National Ready Mixed Concrete Association, Silver Spring, Maryland

Session I

High-Strength Concrete, Past, Present, Future
Kenneth L. Sauder, research civil engineer, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi

Design and Properties of Concretes with Strength Over 1500 Kg/cm²
G. Tognoni, P. Ursella, G. Coppetti, Central Research Laboratory, Italcementi S.P.A., Bergamo, Italy

Quality Control of 55 MPa Concrete in Melbourne, Australia
K.W. Day, director, Concrete Advice Pty. Ltd., Melbourne, Victoria, Australia

Testing High-Strength Concretes: A Critical Review of the State-of-the-Art
Weston T. Hester, assistant professor, Department of Civil Engineering, University of California, Berkeley, California

High-Strength Concrete: Potential Economics and Potential Problems
Michael A. Taylor, associate professor, Department of Civil Engineering, University of California, Davis, California

THURSDAY, MARCH 22
2:30 p.m. - 5:30 p.m.

PRACTICAL AND POTENTIAL APPLICATIONS OF HIGH-STRENGTH CONCRETE
sponsored by the ACI Ad Hoc Committee on High-Strength Concrete

Crystal Ballroom

Session Chairman: W. Gene Corley, director, Engineering Development Department, Portland Cement Association, Skokie, Illinois

Session II

Structural Properties of High-Strength Concrete
A.H. Nilson, professor and chairman; and F.O. Sato, professor, Department of Structural Engineering, Cornell University, Ithaca, New York

High-Strength Concrete—Preliminary Results on Micro-Cracking and Creep
F.O. Sato, professor; and A.H. Nilson, professor and chairman, Department of Structural Engineering, Cornell University, Ithaca, New York

High-Strength Cast-in-Place Concrete in Major Structures in Ontario
John A. Bickley, vice-president; and John C. Payne, manager, Concrete Technology Division, Trow Group Limited, Rexdale, Ontario, Canada

Some Examples of Energy and Resource Conservation Utilizing High-Strength Concrete

Panel Discussion

Moderator: W. Gene Corley, session chairman
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AWARDS LUNCHEON
Thursday
March 22, 12:15 P.M.

Empire Room
Come meet the awardees and new ACI officers.
Enjoy a good lunch and watch
the multimedia awards presentation show.

Honorary Memberships:
Edward A. Abdun-Nur
Francisco do Assis Basillo
John A. Blume
Felix Candela
Ben C. Gerwick

Charles S. Whitney Award:
Center for Building Technology,
National Bureau of Standards

Henry C. Turner Award:
Solomon Cady Hollister

Alfred E. Lindau Award:
Maurice P. van Buren

Arthur R. Anderson Award:
Joseph J. Waddell

Joe W. Kelly Award:
George Winter

Cadric Willson Award:
Robert E. Tobin

Wason Medal for Most Meritorious Paper:
James M. Shilstone

Wason Medal for Materials Research:
Phillip B. Bamforth
Roger D. Browne

Raymond C. Reese Structural Research Award:
John E. Breen
James O. Jirsa
C.O. Grangun

Construction Practice Award:
David Brown

Henry L. Kennedy Award:
Francis J. Principe

Chapter Activities Committee Award:
Joseph A. Dobrowolski

Recognition of Retiring Officers
Introduction of New Officers
Presentation of Momento to Retiring President
THURSDAY, MARCH 22
2:30 p.m. - 5:30 p.m.
SYMPOSIUM ON ACCELERATED CURING
sponsored by ACI Committees 516 and 517

Monarch

Session Co-Chairmen: Thomas B. Redmond, chairman, ACI Committee 516, and vice-president, Technical Services Department, National Concrete Masonry Association, McLean, Virginia
and
Robert M. Barnett, chairman, ACI Committee 517, and professor of civil engineering, Pennsylvania State University, University Park, Pennsylvania

Energy Consumption in the Curing of Precast Concrete Products
Weston T. Hester, assistant professor of civil engineering, University of California, Berkeley, California

Accelerated Curing of Concrete Masonry Units
Clyde L. Stewart, vice-president, Block Division, Denver Brick & Pipe Company, Denver, Colorado

Shortened Time for Curing Asbestos-Cement Pipe
Thomas H. Sadler, senior research engineer, Johns-Manville Research Center, Denver, Colorado

Energy Savings in Accelerated Curing of Concrete
Lee Polisner, Omnia Engineering, Inc., Needham, Massachusetts

Solar Industrial Process Heat Water for Cement Block Manufacture
Hal Wilkening, AAI, Inc., Baltimore, Maryland

Internal Insulation of Steam Kilns and the Use of Pozzolans for Reducing Curing Costs
James V. Zacor, manager, Energy Management Division, Scientific Service, Inc., Redwood City, California

THURSDAY, MARCH 22
2:30 p.m. - 6:00 p.m.
INTERNATIONAL SYMPOSIUM ON FOUNDATIONS FOR EQUIPMENT AND MACHINERY
sponsored by ACI Committee 351

Regency

Session Chairman: Ira W. Pearce, principal engineer, Design Engineering Department, Duke Power Company, Charlotte, North Carolina

Session II

Analysis and Design of Paper Machine Foundations
C. Raymond Hays, manager of quality assurance; T. H. Spring- field, director of technical development; and John R. Bayless, senior geotechnical engineer, Rust Engineering Company, Birmingham, Alabama

Calculated Response of Pile Supported Machines
Gerald M. Diaz, associate-in-charge; and Mir Azizi, project engineer, Hardin-Lawson Associates, Los Angeles, California

Foundation Analysis for a Rotary Machine Using a Coupled Model
Raymond A. Schmidt, design engineer, Civil Design Department, Ebasco Services, Inc., Atlanta, Georgia

Power Plant Turbine Pedestal Structure
Philip N. Fitcher, engineering consultant; and Kenneth Y. Lee, engineering specialist, Bechtel Power Corporation, Gaithersburg, Maryland

Low-Tuned Concrete Turbine-Generator Foundations
H. N. Jagdaeesh, chief civil engineer, W. P. London and Associates Limited, Niagara Falls, Ontario, Canada

Applications of New Research for Pile Supported Machine Foundations
William E. Saul, professor and chairman, Department of Civil and Environmental Engineering, University of Wisconsin-Madison, Madison, Wisconsin; and Thomas W. Wolf, assistant project engineer, Soil Testing Services of Wisconsin, Inc., Green Bay, Wisconsin

Precision Grouting—Theory and Practice
John C. King, consulting engineer, Cleveland, Ohio
THURSDAY, MARCH 22
7:30 p.m. - 10:00 p.m.
FORUM: CONCRETE PARKING STRUCTURES—DO THEY HAVE PROBLEMS?
sponsored by ACI Committee 114

Chairman: Robert L. Henry, chairman, ACI Committee 114, and chief engineer, Texas Testing Laboratories, Dallas, Texas

Moderator: Richard L. Tucker, professor of civil engineering, University of Texas at Austin, Austin, Texas

Panelists: Val H. Canon, president, Architectural Concepts, Inc., Dallas, Texas
John Dodley, general manager, Seatreat Systems, Inc., Sun Prairie, Wisconsin

The objective of this Forum is to bring designers, contractors and owners of parking structures together to consider construction, service and maintenance problems.

Parking structures are unique. They are classified as buildings, but are not enclosed and are thus subject to environmental cycles. They are subject to moving loads and automobile traffic and should perhaps be suitably characterized as bridges. Yet, present budgets for parking structures are much less than for comparable bridges. Their economic viability is heavily dependent upon low construction costs and low maintenance costs.

Particular questions to be explored will include the following:
- Is it possible to keep a parking structure from leaking?
- How can spalling and subsequent exposure of reinforcement be eliminated?
- Is it possible to achieve adequate quality for the present prices? Do we need more stringent standards?
- Are problems unfairly emphasized since structural details and connections are exposed?

The Forum will consist of prepared presentations and then the session will be opened for discussion with the speakers remaining as a panel through the discussion.

FRIDAY, MARCH 23
9:00 a.m. - 12:00 noon
DESIGN PHILOSOPHIES FOR SHEAR WALLS
sponsored by ACI Committees 442 and 445

Session Chairman: Paul Zia, chairman, ACI-ASCE Committee 445, and professor and acting head, Department of Civil Engineering, North Carolina State University, Raleigh, North Carolina

Earthquake Resisting Shear Walls—New Zealand Design Trend
T. Paulay, professor, Department of Civil Engineering, University of Canterbury, Christchurch, New Zealand

Design Concept of Special Shear Walls Failing in Shear
Masahide Tomii, professor of structural engineering, Department of Architecture, Kyushu University, Fukuoka, Japan

Design Criteria for Earthquake Resistant Structural Walls
A. F. Fliprato, manager, Construction Methods Section, and W. G. Conley, director, Engineering Development Department, Portland Cement Association, Skokie, Illinois

Design of Reinforced Concrete Shear Wall Structural Systems
Vitelmo V. Bertone and E. P. Popov, professors of civil engineering, University of California, Berkeley, California

Panel Discussion
Moderator: S. M. Uzumeri, chairman, ACI Committee 442, and professor of civil engineering, University of Toronto, Toronto, Ontario, Canada
FRIDAY, MARCH 23
9:00 a.m. - 12:00 noon

CONCRETE TRANSPORTATION AND
PLACING EQUIPMENT:
PAST, PRESENT, AND FUTURE
sponsored by ACI Committee 304

Session Chairmen: Robert E. Tobin, chairman, ACI Committee 304, and Portland Cement Association, Arcadia, California

Introduction
Robert E. Tobin, session chairman

Ready Mix Trucks and Batch Plants

Buckets and Buggies
Roland E. Garlinghouse, president, Gar-Bro Manufacturing Company, Los Angeles, California

Conveyors
James L. Cope, president, Morgan Manufacturing Company, Yankton, South Dakota

Pumping
Wayne G. Anderson, owner, Wayne Anderson Construction, Inc., Yankton, South Dakota

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ACI FUTURE CONVENTIONS

1979 Fall Convention
October 28-November 2
The Capital Hilton Hotel
Washington, D.C.

1980 Annual Convention
March 2-7
with World of Concrete
Aladdin Hotel
Las Vegas, Nevada

1980 Fall Convention
September 21-26
Condado/La Concha
San Juan, Puerto Rico

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MILWAUKEE CONVENTION
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University of Wisconsin-Milwaukee

Orton Spanky
Con "G" Corporation

Thomas Wenzel
Marquette University
LADIES' PROGRAM

Hospitality: English Room, Fifth Floor

Every day of the Convention complimentary coffee and sweet rolls will be provided to the ladies in their hospitality suite starting Monday morning at 8:00 a.m. “Guten morgen.”

The suite will open all day and will act as a meeting and gathering place for attendees.

SCHEDULE

Monday, March 19
8:00 a.m.
Registration
2:00 p.m. - 5:40 p.m.
Tour of the City
2:00 p.m.
Walking Tours

Tuesday, March 20
8:30 a.m. - 12:00 noon
Technical Tour No. 1
9:00 a.m. - 12:40 p.m.
Tour of the City
2:00 p.m.
Walking Tours
2:00 p.m. - 5:00 p.m.
Technical Tour No. 2

Wednesday, March 21
2:00 p.m.
Walking Tours
2:00 p.m. - 5:00 p.m.
Tour of the City
6:00 p.m. - 8:00 p.m.
“Concrete Mixer” at the Wisconsin Club

Thursday, March 22
8:30 a.m. - 12:00 noon
Technical Tour No. 3
2:30 p.m. - 5:30 p.m.
Shopping Tour to Cedar Creek Village

Friday, March 23
8:00 a.m. - 10:00 a.m.
Coffee and sweet rolls
LOCAL INFORMATION

In the registration area we have a "local information booth" staffed from 8:00 a.m. to 6:30 p.m. every day. Our hosts and hostesses are able to give you directions, ideas for shopping or tours or help to get tickets to cultural attractions. They also have menus from some of Milwaukee’s world famous restaurants. Have some sauerbraten prime steaks, veal parmigiana or knackwurst and sauerkraut. We have German, Italian, Serbian, Polish, Sicilian and Continental restaurants that will warm your heart and fill your "tummy." "Willkommen."

GENERAL TOURS

Hostesses are available to guide each group on every tour. Conventionals are asked to sign up in advance for tours so that sufficient buses can be provided. There are no charges for any tours.

A. CITY TOUR—This tour includes a 50-mile drive through the Milwaukee Metropolitan Area. You will travel along Lake Michigan shores into some of the fine old residential neighborhoods to the north and see the campuses of Milwaukee’s two great universities. A visit to the Civic Center will be followed by a stop at the famous Mitchell Park Domes, to view "fantabulous" floral and plant displays from every corner of the world. Finally you will sample some of Milwaukee’s "gemutlichkeit" (friendship and fun) with a stop at the ultra modern Miller Brewery for a tour and some of Milwaukee’s favorite beverage.

B. SHOPPING TOUR—This tour will take you to "Cedar Creek Settlement" where you can browse among quaint shops and have some wine and cheese at the local winery.

C. MUSEUM TOUR—The Milwaukee Museum is only a short walk from the Marquette Hotel. It is a unique and "different!" kind of museum. You can browse through the "streets of Old Milwaukee," see native Americans in fantastic panoramas displays, and learn about the life our Wisconsin ancestors lived. This is a "don’t miss!" activity.

D. ART CENTER TOUR—Only a short shuttle bus ride from the hotel is the fabulous Saarinen War Memorial Building which houses the Milwaukee Art Center. Milwaukee has an outstanding collection of paintings and sculpture including the $5 million Bradley Art Collection.

E. SPECIAL TOURS—We have Hostesses available to help you with special "on your own" tours in small groups to visit some historic houses and other unique special attractions. Special places you may enjoy include:

- Pabst Theater
- Kalvege-Schloss House
- Milwaukee Journal
- Joan of Arc Chapel

TECHNICAL TOURS

Both men and women will enjoy the technical tours and all are welcome.

TOURS No. 1 and 2

Tours are available to two precast concrete plants. The first tour will take you to the "home" of Spancrete. You will see extrusion of hollow core slabs, wall panel and other precast concrete construction as well as demonstrations of testing and quality control. Also included is concrete block manufacture. If you have never seen hollow core slab construction—don’t miss this.

The second tour will be to the Hutschenreuther Company where examples of architectural precast concrete can be observed in various stages of construction.

TOUR No. 3

A tour will be made of the University of Wisconsin-Milwaukee Structural Engineering Laboratories where full scale testing of large structural concrete systems will be underway. The laboratories have been used for testing a wide variety of large scale structural systems.